ABSTRACT

FIBRINOLYTIC ENZYME ACTIVITY OF *Bacillus pumilus* T4 ISOLATED FROM TERASI SIDOARJO ON SOYBEAN MEAL MEDIA

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Fibrinolytic enzyme can be isolated from many sources, especially microorganisms. Microorganism genus have been known their strong fibrinolytic activity was *Bacillus*, which isolated from fermented food. One of Indonesia traditional fermented food is terasi. Previous research isolated *Bacillus pumilus* which exhibited a fibrinolytic activity from terasi Sidoarjo. The component of growth media may affect the fibrinolityc activity of *Bacillus pumilus* of terasi Sidoarjo. Therefore, the aim of this study is to find out the effect of soybean meal concentrations to the fibrinolityc enzyme activity.

The qualitative test found that the *Bacillus pumilus* T4 from terasi Sidoarjo has been showed proteolytic and fibrinolity activities. The Proteolytic and fibrinolytic index was 2,83 ±1,02 and 1.84 ± 0.15 respectively. The maximum optical density (λ 580) 0,722, 1.040, 0.915, 1.152, and 1.193 after 24, 33, 36, 30 and 36 hours respectively were achieved at 1.0%, 1.5%, 2.0%, 2.5% and 3.0% of soybean meal media. The maximum fibrinolytic activity 0.3207 $U.mL^{-1}.min^{-1}$, 0.2225 $U.mL^{-1}.min^{-1}$, 0.4653 $U.mL^{-1}.min^{-1}$, 0.3642 $U.mL^{-1}.min^{-1}$, and 0.4097 $U.mL^{-1}.min^{-1}$ after 30, 33, 33, 33, and 33 hours respectively were achieved at 1.0%, 1.5%, 2.0%, 2.5%, and 3.0% of soybean meal media.

Keywords : terasi, fibrinolytic, *Bacillus pumilus*, soybean meal